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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,578	08/31/2001	Masakazu Funahashi	OH1N:004	9438

7590 03/21/2005

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EXAMINER

THOMPSON, CAMIE S

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/943,578

Applicant(s)

FUNAHASHI ET AL.

Examiner

Camie S Thompson

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on RCE filed February 2, 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-14 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/19/04, 12/7/04, 2/2/05  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on February 2, 2005 has been entered.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

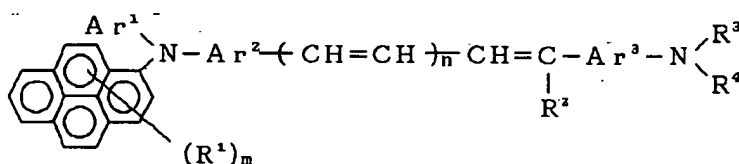
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 3-10 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 07-249490.

The Japanese reference discloses an electroluminescent element that comprises an anode and cathode and an organic compound layer comprising two or more layers (see reference claim 1). Additionally, the reference discloses that the organic compound layer comprises a luminous layer; hole transporting bed and electron transporting bed (see paragraph 0008). Claim 3 of the reference recites that any one of the organic compound layers comprises a styryl compound of reference Formula I.

Art Unit: 1774

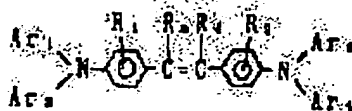


Formula I of the reference satisfies the instant claims when Ar<sup>1</sup> is a phenyl group substituted with a methyl group; Ar<sup>2</sup> and Ar<sup>3</sup> are both a phenyl group; n is 0; R<sup>1</sup> and R<sup>2</sup> are hydrogen and R<sup>3</sup> and R<sup>4</sup> are both either a naphthyl group or an anthracenyl group (see compounds 22 and 23 of Table 1-4). Compounds 22 and 23 satisfy the requirements for the instant styryl compounds in that at least one of A, B, C and D represent pyrene and at least two of A, B, C and D represent -Ar<sup>1</sup>-Ar<sup>2</sup> wherein Ar<sup>1</sup> represents a phenylene group and Ar<sup>2</sup> represents an aryl group. Also, compounds 22 and 23 satisfy the requirements for the instant styryl compounds in that at least two of A, B, C and D represent -Ar<sup>1</sup>-Ar<sup>2</sup> wherein Ar<sup>1</sup> represents a phenylene group and Ar<sup>2</sup> represents an aryl group excluding a case in which A and C represent a biphenyl group and B and D represent phenyl group or A' and C' each represent a substituted or unsubstituted condensed hydrocarbon group having 2 to 5 rings. Paragraph 0028 of the reference discloses an indium-tin oxide layer between anode and the organic compound layer as per instant claims 9-10.

4. Claims 1-2 and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 04-253065.

The Japanese reference discloses a distyryl compound


Art Unit: 1774



The compound of the Japanese reference reads on instant claims 2 and 11-15 when  $R^1$ - $R^4$  are hydrogen and each of  $Ar^1$ - $Ar^4$  is an optionally substituted aryl group. An optionally substituted aryl group can be a pyrene group, a naphthyl group, an anthracenyl group, a phenyl group or a methoxynaphthyl group as per the instant claims.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena L Dye, can be reached at (571) 272-3186. The fax phone number for the Group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
RENA DYE  
SUPERVISORY PATENT EXAMINER  
A.O. 1774 3/25/05